

Reference: 15S1176000

26 November 2014

Union Fenosa Wind Australia
Suite 403, 68 York Street
SYDNEY NSW 2000

Attention: Mr. Shaq Mohajerani

Dear Shaq

RE: PALING YARDS WIND FARM – RESPONSE TO TRAFFIC RELATED SUBMISSIONS

The Transport Impact Assessment for the Paling Yards Wind Farm project was submitted as Appendix 10 of the Environmental Impact Statement (EIS), lodged by Union Fenosa Wind Australia¹. The EIS was placed on public exhibition by the Department of Planning and Environment on 28 March 2014. In total, 22 submissions were received during the public exhibition period, some of which were related to traffic matters. The traffic related submissions were as follows:

- Oberon Council (ID 100345)
- Roads and Maritime Services (ID 100347)
- Upper Lachlan Shire Council (ID 098928)
- Community Submission (ID 98743)
- Community Submission (ID 98922)
- Community Submission (ID 99006)

GTA Consultants (GTA) was commissioned by Union Fenosa Wind Australia in October 2014 to further investigate the suitability of the proposed (oversize) heavy vehicle access route and the site access points on Abercrombie Road. This assessment is detailed below, with specific responses to transport related submissions included as Attachment 1.

Over-Dimensional Vehicle Transport Route

The use of Over-Dimensional (OD) vehicles would be required to transport large wind turbine components (blades, tower sections) to the Wind Farm site. As the final turbine supplier has not yet been selected, the EIS adopted a 'worst case scenario' which combined a range of potential vehicles required to transport the various wind turbine components. Further investigations have been undertaken as part of this assessment, using additional data provided by possible suppliers, with the following revised 'worst case scenario' defined:

- Maximum OD Vehicle Length: 66.5 metres
- Minimum Height Clearance: 5.5 metres

¹ Paling Yards, Transport Impact Assessment, URS Australia Pty Ltd, 10 April 2012

25 YEARS

melbourne
sydney
brisbane
canberra
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gold coast
townsville
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- Minimum Road Width: 5.5 metres
- Maximum Road Gradient: 6%
- Maximum Road Crossfall: 2%

The EIS indicated that Bells Line of Road would be used as the proposed OD Transport Route across the Great Dividing Range. Following consultation with the RMS Special Permits, team it has been confirmed that this route is not supported. As such, the proposed use of the Great Western Highway (Route A32) has been investigated further.

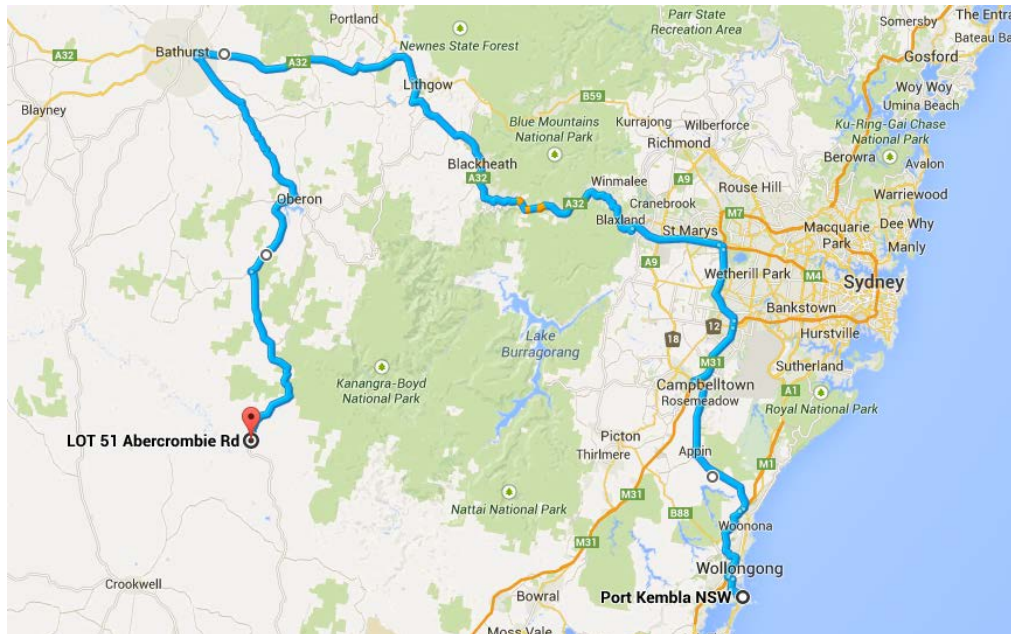
It is likely that the Port Kembla shipping terminals would be the arrival location of the wind farm components. It is however noted that there is the option to use the Port of Newcastle for these activities. Discussion as to the suitability of the routes between these locations and the M7 Motorway were discussed within the EIS. Discussions with RMS officers indicate that there is no concern with transporting oversize loads between the above ports and the M7 Motorway, with such activities having occurred for other projects.

The proposed access route from the M7 Motorway is shown in Figure 1 and described as follows:

- M7 Motorway
- Turn onto the M4 Western Motorway (westbound) at Light Horse Interchange
- Continue onto the Great Western Motorway (A32) for 145 kilometres
- Turn left into Littlebourne Street (O'Connell Road) at Kelso
- Turn Right into Abercrombie Road at Oberon
- Continue for approximately 70 kilometres to the proposed development site.

The proposed route from Port Kembla to the development site can be undertaken in approximately 5 hours by car. It is however noted that it could take up to 15 hours (based in an average speed of 25km/h) for the proposed oversize transport vehicles. Given the weather conditions that are apparent in the Blue Mountains during the winter months (ice/ snow), an assessment of the appropriate timing of vehicle movements should be undertaken in the Traffic Management Plan to be prepared for the works.

Figure 1: OD Transport Route between Port Kembla and Paling Yards



Source: Google Maps

As part of the route investigation, GTA undertook a “drive-through” and video recording of the route and liaised with the RMS Special Permits team to confirm the sections of the identified route that have been already approved and deemed appropriate for wind farm haulage and/or other oversize load requirements. The field investigations were conducted on Tuesday, 28 October 2014 to identify potential areas of concern and take measurements wherever necessary.

Investigations and vehicle swept path analysis on critical corners/ horizontal curves, indicate that the proposed route is feasible, with the following restrictions and conflict areas identified:

- The minimum available height clearance for vehicles is 5.5 metres, which is appropriate for the anticipated OD Transport vehicle load dimensions.
- Gradients along the route are in excess of the 6% maximum stated within the Worst Case OD transport vehicle requirements
- Road cross-falls on the route are in excess of the 2% maximum stated within the Worst Case OD transport vehicle requirements
- Vertical curve radii at several locations are smaller than the minimum 400m radius stated within the EIS ‘worst case scenario’ OD transport vehicle requirements
- Road widths and small radius curved have been identified at the following locations:
 - Great Western Highway – 2 km west of Mount Victoria
 - Great Western Highway – East and West of Hartley
 - O’Connell Road – 12km north of Oberon
- Temporary intersection modifications would be required at the following intersections:

- Great Western Highway and Littlebourne Street, Kelso
- O'Connell Road and Abercrombie Road, Oberon.
- There are limited passing opportunities on Abercrombie Road south of Oberon.

The matters raised above do not restrict the use of the proposed route for access to the Wind Farm site. However, further detailed consideration will be analysed once the turbine supplier and transport contractor has been selected. The majority of the matters raised could be overcome by vehicle selection or custom vehicle manufacture. Temporary road works would be required at a several locations, as identified above. This could involve the removal of barriers and/or trees, or the construction of temporary pavement/ roads.

The required treatment measures would be developed in consultation with RMS and the respective Councils along the route. These would be documented within a Traffic Management Plan to be prepared for the OD Transport movements and approved by RMS prior to the commencement of works. GTA has prepared an overview Table of Contents for a Traffic Management Plan, providing a brief description of the discussion under each Chapter. The Table of Contents has been included as Attachment 2.

It is also noted that RMS has planned road upgrade works along the Great Western Highway at Kelso and the Blue Mountains to be undertaken in the next 5 years. As part of the preparation and implementation of the Traffic Management Plan, the approved contractor would need to consult with RMS and road contractor(s) to maintain a suitable path of travel for the OD transport vehicles.

Site Access Locations

Further to the site access assessment provided with in EIS, an initial assessment of sight distances has been undertaken for all proposed access roads. It is noted that *Austroads Guide to Road Design – Part 4A: Unsignalised and Signalised Intersections* sets out the sight distance requirements for intersections. The minimum sight distance required for a major road on approach to an intersection is defined by Safe Intersection Sight Distance (SISD). This is measured from the driver's eye height (1.1 metres) to the top of a car (1.25 metres) approaching on the major road or stopped at the intersection on the side road and is based on the existing posted speed limit on the major road. The Guide states a minimum SISD of 248m and 262m (for reaction times of 2 seconds and 2.5 seconds respectively) for the existing posted 100kph speed limit on the access roads to subject site.

An assessment for each access is outlined below and also shown graphically shown in Attachment 3.

Access 1

Access 1 would form a T-intersection with Abercrombie Road approximately 3km north of the Abercrombie River crossing. The exact location would be finalised at the detailed design stage, however it is anticipated to be at approximately 34° 10' 37" S and 149° 44' 36" E. The eastern side of Abercrombie Road in the vicinity of Access 1 has mature non-native pine trees which would require clearing for the proposed

intersection. Upon visual inspection, it is anticipated that the SISD for the proposed intersection would be achievable. However, the final intersection location will need to consider the proximity of a horizontal curve to the north on Abercrombie Road as it may compromise the required SISD. Figure 2 and Figure 3 show Abercrombie Road in the vicinity of Access 1.

Figure 2: Access 1 (looking north)



Figure 3: Access 1 (looking south)



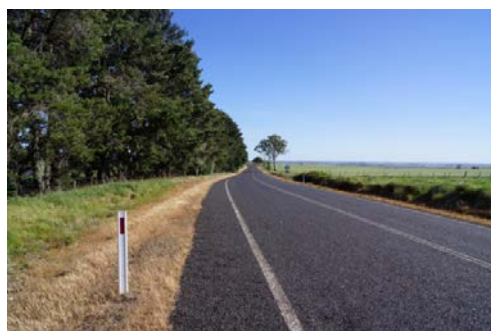
Access 2

Access 2 would form a T-intersection with Abercrombie Road approximately 4.5km north of the Abercrombie River crossing. The exact location would be finalised at the detailed design stage, however it is anticipated to be at approximately 34°09'49"S and 149°44'49"E. The eastern side of Abercrombie Road in the vicinity of Access 2 has mature non-native pine trees which would require clearing for the proposed intersection unless it is constructed further north into grassland. Upon visual inspection, it is anticipated that the SISD for the proposed intersection would be achievable. However, the presence of a steep horizontal curve followed by a gradual dip in the road to the north should be considered during detailed design. Figure 4 and Figure 5 show Abercrombie Road in the vicinity of Access 2.

Figure 4: Access 2 (looking north)



Figure 5: Access 2 (looking south)



Access 3:

Access 3 would form a T-intersection with Abercrombie Road approximately 5.2km north of the Abercrombie River crossing. The exact location would be finalised at the

detailed design stage, however it is anticipated to be at approximately 34°09'24"S and 149°44'46"E. The land on the western side of Abercrombie Road is elevated with a gradual slope towards the road. Upon visual inspection, it is anticipated that the SISD for the proposed intersection would be achievable. However, the final intersection location will need to take into consideration proximity of a horizontal curve followed by a gradual dip northwards on Abercrombie Road as it may compromise the required SISD. Figure 6 and Figure 7 show Abercrombie Road in the vicinity of Access 3.

Figure 6: Access 3 (looking north)



Figure 7: Access 3 (looking south)



Access 4 and Access 5:

Access 4 and Access 5 are located in close proximity to each other on Abercrombie Road and would form two staggered T-intersections approximately 7.5km north of the Abercrombie River crossing. The exact locations would be finalised at the detailed design stage, however they are anticipated to be at approximately 34°08'19"S and 149°45'70"E. Upon visual inspection, it is noted that the SISD for the proposed intersections may not be achievable due to presence of a crest in the road to the south. It is recommended that consideration be given to moving the accesses north of the currently proposed locations, so as to benefit from the generally straight road alignment with good visibility. Staggered intersections, in place of a four-way single intersection, is considered to be appropriate at this location so as to avoid any direct through movements between site accesses, which may potentially compromise road safety. Figure 8 and Figure 9 show Abercrombie Road in the vicinity of Accesses 4 and 5.

Figure 8: Access 4/5 (looking north)



Figure 9: Access 4/5 (looking North)



Access 6

Access 6 would form a T-intersection with Abercrombie Road approximately 10.5km north of the Abercrombie River crossing. The exact location would be finalised at the detailed design stage, however it is anticipated to be at approximately 34°07'32"S and 149°46'55"E. Both sides of Abercrombie Road in the vicinity of Access 6 have mature trees which would require clearing for the proposed intersection. It is anticipated that this would be no more than six trees. Upon visual inspection, it is anticipated that the SISD for the proposed intersection would be achievable. However, the final intersection location will need to take into consideration proximity of a gradual dip to the south on Abercrombie Road. Figure 10 and Figure 11 show Abercrombie Road in the vicinity of Access 6.

Figure 10: Access 6 (looking north)



Figure 11: Access 6 (looking south)



I trust the above assessment clearly sets out the proposed OD transport route and addresses concerns in relation to the proposed access locations. Naturally, should you have any questions or require any further information, please do not hesitate to contact me in our Sydney office on (02) 8448 1800.

Yours sincerely

GTA CONSULTANTS



Brett Maynard
Director

encl.

Attachment 1 – Responses to Transport Related Comments

Attachment 2 – Overview Traffic Management Plan Table of Contents

Attachment 3 – Site Access Locations

Attachment 1

Responses to Transport Related Comments

Table 1: EIS Submission Table

EIS Submission from (ID)	EIS Submission Comments	Response
Community (98743)	<p>Unsuitability of Roads</p> <p>The main road between the town of Taralga and the Paling Yards proposed site is totally unsuitable for large transportation vehicles. The road is narrow, windy and has a very narrow creek crossing. The road surface is poor and there are often accidents due to the numerous blind spots in the road. It would [sic] negligent of the NSW Planning Authority to authorise the use of the road for the transportation of materials and turbine components. An examination of the road from Goulburn to Taralga will reveal the level of damage caused by transportation vehicles in the construction phase of the Taralga Wind Farm. Any development proposal should include the cost of a full road upgrade and replacement at the end of the construction phase.</p>	<p>Noted. Taralga Road would not be used for the transport of plant and equipment by over-dimensional vehicles, however may be used by light vehicles for access to the proposed development during construction and operation. A minor increase in light vehicle traffic would not impact road condition or safety.</p>
Community (98922)	<p>Unsuitability of Roads</p> <p>The main road between the town of Taralga and the Paling Yards proposed site is totally unsuitable for large transportation vehicles. The road is narrow, windy and has a very narrow creek crossing. The road surface is poor and there are often accidents due to the numerous blind spots in the road. It would [sic] negligent of the NSW Planning Authority to authorise the use of the road for the transportation of materials and turbine components.</p>	<p>Noted. Taralga Road would not be used for the transport of plant and equipment by over-dimensional vehicles, however may be used by light vehicles for access to the proposed development during construction and operation. A minor increase in light vehicle traffic would not impact road condition or safety.</p>
Community (99006)	<p>We have been advised that due the construction requirements of the building materials being delivered from the Goulburn Direction to the proposed development site that there is a requirement to have the road widened down the steep descent of Taralga Road which borders our property. As the nature of the landscape is very steep, we have been advised that earth moving works will be required to cut into the boundary of our property to allow the road to be widened – this of course will take months or development work of jack hammering and cutting of the rock to sufficiently widen the road to accommodate trucks to pass. We've been advised that the legal descent for trucks to descend is 4 degrees however the descent on Taralga Road is current 5 degrees. Any development work will definitely have an impact on us while living there and the impact to our property boundaries to accommodate this requirement.</p> <p>We reject any access or use of our property in the event land is required to widen the road; suitable compensation should be discussed in the event this is required moving forward.</p>	<p>All heavy vehicle activity associated with the site would be to and from the north via Abercrombie Road. This will be included as part of the construction contractor's agreement, with a requirement to specifically identify appropriate material origins. As such, it is anticipated that no heavy vehicles will access the site via Taralga Road. Taralga Road may however be used by light vehicles for access to the proposed development during construction and operation. A minor increase in light vehicle traffic would not impact road condition or safety and would therefore not require any upgrade of Taralga Road.</p>
Oberon Council (100345)	<p>There is no concern about the volume of traffic expected to be generated by this development, given the low traffic volumes currently using Abercrombie Rd (which is the only Council controlled road to be used for access).</p>	<p>Noted.</p>

EIS Submission from (ID)	EIS Submission Comments	Response
Oberon Council (100345)	From Section 3.1 of the EIS it appears that vehicles up to 64.4m long may be required to deliver components to the site. This will require special transport arrangements, presumably involving escort vehicles. Also the minimum height clearance required is 6.6m, which raises clearance concerns along Abercrombie Rd. The applicant will be required to determine this, and to make appropriate arrangements with Council and all other agencies to rectify any issue raised, including tree removal and possible relocation of power lines. If any trees are proposed to be lopped or removed, this will be required to be undertaken in consultation with Council. Any such works required will be at the applicant's cost.	Noted. Standard over-dimensional vehicle procedures (as required by RMS) would be used, including pilot vehicles as appropriate. As discussed in the additional route assessment undertaken by GTA Consultants, the minimum height clearance required for over-dimensional transport vehicles is 5.5 metres. An initial assessment indicates that all major structures provide this minimum clearance. However, a detailed assessment of all potential obstructions would be undertaken during the development of the Traffic Management Plan, in consultation with the relevant Council and RMS. Approval would be sought from Council before any road modification works are undertaken by the applicant, at the applicant's cost.
Oberon Council (100345)	The EIS states that the maximum gradient permitted is 6%, however some parts of Abercrombie Rd exceed this gradient. The applicant needs to justify how this issue will be dealt with.	A detailed Traffic Management Plan will be prepared in consultation with Council and RMS prior to any over-dimensional wind turbine component movements. The plan will detail measures to manoeuvre the components up grades steeper than 6%. This could include the use of additional prime movers to increase pulling power.
Oberon Council (100345)	The EIS does not specify the expected vehicle loadings, and whether the loadings may exceed the normal permissible legal loading for Abercrombie Rd or other roads. Further information is requested relating to this issue and this may require pavement strength testing. The cost to repair any pavement damage must be borne by the applicant should the Department give approval to the development.	It is noted that Abercrombie Road is currently used by logging trucks to transport timber. A dilapidation assessment will be carried out on O'Connell Road and Abercrombie Road prior to any over dimensional component movements. Pavement strength testing and assessment will be undertaken (if required) once the final turbine supplier and transport contractor are known. The Applicant will consult with Council and agree on any appropriate pavement upgrades/ rehabilitation along Abercrombie Road, based on suitable criteria.
Oberon Council (100345)	The EIS specifies there will be six access points from Abercrombie Rd into the development site; however the descriptions of the locations are not sufficient to accurately determine them on site. It is requested that they be marked on site to enable sight distances to be checked. Further information is also requested as to whether all six will remain as permanent accesses, or will they be in place only during the construction phase. If they are only temporary, sight distance is not considered to be as critical. However traffic control may be required when they are in use.	Additional details of the access locations have been provided within the assessment undertaken by GTA Consultants, with detailed designs required to demonstrate appropriate sight distances. This includes the coordinates and photos of each access location. All access locations are to remain accessible post construction to allow for maintenance and inspection of the turbines.
Oberon Council (100345)	Accurate identification of the access locations is also important to determine if any significant vegetation will need to be cleared and to enable Council to set any conditions on their design.	Additional details of the access locations have been provided within the assessment undertaken by GTA Consultants. This includes the coordinates and photos for each access location.
Oberon Council (100345)	The EIS states that in two locations the new accesses will form a "crossroads" on Abercrombie Rd (accesses are opposite each other). This is not desirable, but can be avoided with just a small offset between the two accesses.	Access 4 and Access 5 would be constructed as staggered T-intersections to improve safety at these locations; details of which will be determined during detailed design.

EIS Submission from (ID)	EIS Submission Comments	Response
RMS (100347)	The selected road transportation routes for materials from Port Kembla and Port of Newcastle to the site assumes access from Sydney using Bells Line of Road (MR 184) and possibly Great Western Highway (HW5). Access across the Great Dividing Range for over size/over mass and some low loader vehicles is not possible using Bells Line of Road and may not be possible using Great Western Highway. Transportation access from east to west by road will need to be obtained, subject to approval, via roads other than Bells Line of Road. In developing new routes, the proponent is strongly encouraged to consult with Roads and Maritime Special Permits Unit on 1300 656 371.	RMS Special Permits branch has been consulted and an assessment of the proposed over-dimensional transport route via Great Western Highway (A32) is provided in the additional assessment undertaken by GTA Consultants. The use of Great Western Highway is feasible, however a number of potential conflicts have been identified. A detailed Traffic Management Plan and scope of any road modification works would be developed in consultation with RMS and respective Council prior to any over-dimensional wind turbine component movements.
RMS (100347)	The applicant has stated that final transportation routes will be determined as part of the development of and approval of a Traffic Management Plan (TMP). Access to the site, particularly for over size and over mass vehicles, is critical to the establishment of the proposed wind farm and transportation routes for these and other types of vehicles should be determined as part of the development application process.	RMS Special Permits branch has been consulted and an assessment of the proposed over-dimensional transport route via Great Western Highway (A32) is provided in the additional assessment undertaken by GTA Consultants. The use of Great Western Highway is feasible, however a number of potential conflicts have been identified. A detailed Traffic Management Plan and scope of any road modification works would be developed in consultation with RMS and respective Council prior to any over-dimensional wind turbine component movements.
RMS (100347)	The Transport Impact Assessment (TIA) lacks a robust assessment of alternate methods of transportation of materials to the site (e.g. rail). Partial usage of alternative transport methods would minimise disruption to traffic using the State road network.	Due to the alignment of the rail corridor over the Blue Mountains, the transport of turbine components via rail is not possible. The potential to transport components to the site via air is not considered cost effective at the moment; however such an assessment will be included within the Traffic Management Plan, which will be prepared prior to any over-dimensional component movements.
RMS (100347)	The TIA does not provide an assessment of tourist traffic generated by the proposed development. Roads and Maritime's previous experience with wind farms has shown that viewing platforms with wind farm information available at strategic locations allows motorists to safely pull off the road to view wind turbines and minimises unsafe viewing and driving practices.	It is not anticipated that significant additional tourist traffic would be generated by the proposed development, due to the site location. However, any existing tourist traffic on Abercrombie Road may desire to stop and view the turbines. As such, a viewing platform is proposed to be provided north of Access 4/5 to allow tourists to safely pull over off the road and view the wind turbines. Details of the proposed viewing platform and road interface will be determined during detailed design, seeking the relevant approvals in conjunction with the access roads.

EIS Submission from (ID)	EIS Submission Comments	Response
RMS (100347)	Cumulative impacts provided in the supporting documentation focuses on other wind farms in the region and not on other developments/works such as mining proposals and road upgrades. For example, in the event that the Great Western Highway is proven to be a suitable transportation route, upgrades at Kelso and Forty Bends will impact on transportation of materials, staff, etc to the site.	The cumulative impacts of the project and other developments/ works will be assessed as part of the Traffic Management Plan prepared for the transport of over-dimensional wind turbine components. Such an assessment will be more relevant once the project timing is better understood. The approved transport contractor will consult with RMS and relevant contractors undertaking works on the Great Western Highway to maintain a suitable path of travel for the OD transport vehicles during wind farm construction.
RMS (100347)	No detail of intersection upgrades to accommodate over-size/over-mass vehicles has been provided. The applicant has stated that details of intersection and access upgrades will be provided in the TMP.	Additional assessment of the proposed OD transport route has identified several locations at which modification works may be required, including: Great Western Highway – 2 km west of Mount Victoria Great Western Highway – East and West of Hartley Great Western Highway and Littlebourne Street intersection, Kelso O'Connell Road – 12km north of Oberon O'Connell Road and Abercrombie Road intersection, Oberon. The extent of the upgrade works required will not be known until the final wind turbine supplier and transport contractor is known. The upgrade works would be undertaken in consultation with RMS and the relevant council and detailed within the Traffic Management Plan to be prepared.
RMS (100347)	Prior to the commencement of construction works, a Traffic Management Plan (TMP) shall be prepared for the project in consultation with and approved by Oberon Council and Roads and Maritime Services. The TMP shall identify the proposed route(s) and associated impacts (temporary street closures, removal and replacement of road infrastructure, upgrading of road infrastructure, etc.) which will be required in order for necessary materials and machinery to be delivered to the site. The TMP shall include assessment of high risk locations that prevent safe two-way passage of traffic and how traffic movements are to be negotiated, projected delays experienced by traffic on affected roads (origin to destination), cumulative impacts and mitigating measures to be employed. The applicant is to be accountable for transport operations complying with the TMP as well as the haulage contractor.	Noted. A Traffic Management Plan and associated Traffic Control Plans will be prepared in consultation with RMS and respective Councils. A draft Table of Contents is provided in Attachment 2.

EIS Submission from (ID)	EIS Submission Comments	Response
RMS (100347)	Prior to any haulage requiring over-size/over mass vehicles and loads the proponent will be required to obtain special permits. To obtain a permit, the proponent will need to contact Roads and Maritime's Special Permits Unit in Glen Innes on 1300 656 371; The requirements outlined in Roads and Maritime's publication Operating Conditions: specific permits for oversize and over mass vehicles and loads are to be followed. This publication is available online at: www.rms.nsw.gov.au/heavyvehicles/oversizeovermass .	Noted. The Applicant will obtain all permits required to carry out works within the public road.
RMS (100347)	If any parts of the proposed transport routes on classified roads are unable to cater for the project related traffic and transport, the proponent is required to improve such part of the road to safely cater for the length, size and volume of vehicles and their loads and to protect the integrity of the classified road network. This may include the proponent constructing stopping bays (suitable hard stand areas) at distances and dimensions determined by Roads and Maritime. These areas would be required along proposed routes to allow following vehicle queues to pass. Upgrades of the road network shall be determined following submission of the TMP and constructed prior the commencement of construction works.	Noted. A Traffic Management Plan and associated Traffic Control Plans will be prepared in consultation with RMS and respective Councils. This would include details of road upgrade works would be carried out at the cost of the Applicant. A draft Table of Contents is provided in Attachment 2.
RMS (100347)	Prior to any work on the State classified road network, the proponent will be required enter into a formal agreement in the form of a Works Authorisation Deed with Roads and Maritime Services.	Noted. The Applicant will enter into a Works Authorisation Deed with the RMS for all works on classified State Roads.

EIS Submission from (ID)	EIS Submission Comments	Response
RMS (100347)	Any disturbances to traffic lanes, shoulders, verges or other disturbance within the road reserve of classified roads are to be reinstated to pre-existing or better condition. This includes any impact on the road pavement, culverts, bridges, causeways, signage and traffic islands.	Noted. The Applicant would reinstate all areas disturbed by the transport of wind farm components to pre-existing or better condition.
RMS (100347)	Prior to the commencement of haulage operations, a full and independent risk analysis and inspection of the transport route(s) is required and a copy of the analysis is to be supplied to Roads and Maritime Services. Further analysis and reporting to assess possible damage to and repair of the route will be required on a regular basis and at completion of construction works.	Noted. An independent risk analysis and inspection of the transport route will be carried out prior to the commencement of haulage operations (noting that a preliminary assessment has now been carried out by GTA Consultants. Further analysis and reporting would be completed as required to comply with any reasonable request of RMS.
RMS (100347)	Roads and Maritime requires a commitment from the proponent to provide funding for the maintenance and repair of any affected classified roads for the duration of transportation of over size and over mass vehicles and loads, to the satisfaction of Roads and Maritime. The commitment to fund maintenance and repairs shall be included in the TMP.	Noted. The Applicant will commit to funding the maintenance and repair of any roads damaged through the transport of wind farm components. Details of this commitment would be included as part of the Traffic Management Plan to be prepared for the project.
RMS (100347)	Vehicles transporting loads will not be permitted to travel in convoys or platoons unless specifically permitted by the relevant roads authority and/or Roads and Maritime.	Noted. This condition will be included in the Traffic Management Plan to be prepared for the project.
RMS (100347)	Convenient and easily accessible areas shall be identified and appropriate facilities provided for members of the public to safely view wind turbines.	Noted. A viewing platform will be provided north of Access 4/5 to allow tourists to safely pull off the road and view the wind turbines.
RMS (100347)	All arrangements for the control of traffic on classified roads are to be in accordance with Roads and Maritime's publication Traffic Control at Work Sites. A Road Occupancy Licence will be required prior to any works commencing within three (3) metres of the traffic lanes of state classified roads and submission of a TMP will be part of Road Occupancy Licence(s).	Noted. The proponent will obtain a Road Occupancy Licence from the RMS (or Council equivalent) prior to commencing any works on or near public roads. All works will be carried out in accordance with Traffic Control at Work Sites manual, by suitably qualified personnel.
Upper Lachlan Shire Council (98928)	Upper Lachlan Shire Council (ULSC) has studied the Environmental Impact Statement and other documentation associated with the Paling Yards Wind Farm Development. Whilst Council acknowledges that the proponent plans to limit its use of the ULSC road network, Council has concerns that even this limited use proposal will have the potential to damage the road assets that are owned by the community in addition to posing a threat to the safety of existing road users.	Taralga Road would not be used for the transport of plant and equipment by over-dimensional vehicles, however may be used by light vehicles for access the proposed development during construction and operation. A minor increase in light vehicle traffic would not impact road condition or safety.

EIS Submission from (ID)	EIS Submission Comments	Response
Upper Lachlan Shire Council (98928)	<p>Council is concerned that the information regarding Over Dimension, Over Mass and Heavy Haulage routes appears to be inconsistent. Council has sought advice from an experienced heavy haulage operator who considers that all of the routes favoured in the report are long, unwieldy, have areas where the heavy haulage parameters would be exceeded (in terms of cross fall and longitudinal grades) as well as being uneconomical.</p> <p>The comparison with B-Double routes is unrealistic as each type of vehicle is allowed to use (or restricted from using) particular routes depending on characteristics that are unique to each type of vehicle. The operation of vehicles carrying OD and OM loads is significantly different to both 19m and 26mB-Doubles (19mB-doubles have general access rights that allow them to travel on roads that are used by conventional semi-trailers). It may also be of significant benefit to the developer and the wider community to upgrade the Abercrombie River Bridge, approaches roads and use MR256 for all vehicles to access the site.</p> <p>Should the proponent wish to use the route involving MR256, ULSC will require that the Abercrombie River Bridge be replaced and the associated roadway upgraded as necessary.</p>	<p>Noted, Taralga Road would not be used by over-dimensional vehicles.</p>
Upper Lachlan Shire Council (98928)	<p>ULSC is also concerned with the lack of commitment from the developer in relation to the route that is likely to be used for light traffic to access the site. The Transport Impact Assessment states that 85.9% of the personnel on site each day will travel from the Goulburn/Canberra area. Unfortunately, it fails to identify which route will be used by these people to access the site. Obviously, most staff will be seeking to use MR256 for this purpose.</p> <p>ULSC has concerns regarding the use of MR256 as several areas of substandard road (pavement strength and alignment) exist between Taralga and the Abercrombie River. Table 4.1 of the T.I.A. assesses peak light traffic as being 120 movements per day; however this is assessed in one direction only. The base traffic is shown in two directions. Using this information after it has been corrected (multiplied by two), the light traffic on MR256 will almost double. Whilst, in absolute terms, the additional traffic may not cause problems with intersections and "traffic lights" and the road may have enough theoretical capacity, in relative terms the everyday existing users will have trouble in coping with these changes. This will be exacerbated when the existing traffic and development traffic will travel in opposing directions during the am and pm peaks.</p> <p>This additional traffic has the potential to cause significant conflicts for users of the existing road network.</p>	<p>It is anticipated the project could generate up to approximately 168 two-way vehicle trips per day associated with site personnel during the construction period. There is also anticipated be an additional 40 two-way vehicle trips per day associated with construction vehicle traffic. Construction vehicle traffic would arrive and depart from the north via Abercrombie Road. Trips associated with personnel could approach from both directions. Based on the assumption that 86% of personnel would approach the site from the south, this equates to an additional 73 trips during any peak hour.</p> <p>It is acknowledged that this could represent a high relative change in current traffic volumes to the south along Taralga Road and Richlands Road. However, absolute traffic volumes on these roads are anticipated to continue to operate within acceptable bounds. Although this could affect safety and associated risks of crashes on these roads, the relative risk is anticipated to remain low.</p> <p>Appropriate communication with the local community and other existing road users through signage and other media would assist in minimising such risks. Some additional warning signage at specific areas of concern (e.g. locations of substandard alignment) could be installed at the Applicant's expense.</p>

EIS Submission from (ID)	EIS Submission Comments	Response
Upper Lachlan Shire Council (98928)	It may be necessary to impose speed limits on parts of the public road network to ensure that the interaction of construction traffic with existing traffic occurs in a safe manner.	A Traffic Management Plan and associated Traffic Control Plans will be prepared to manage traffic impacts and safety during construction. The operation of the site access points would be considered as part of this and appropriate measures implemented to maintain safety on Abercrombie Road.
Upper Lachlan Shire Council (98928)	ULSC is concerned that the proponent has not identified potential sources for road making gravels, concreting aggregates, cement and reinforcing steel. The documents assume that these materials will be delivered to the site from the north, but fails to provide evidence to indicate how this will be achieved and policed. Unfortunately, the transport of these materials has the greatest potential to damage the local road network (as well as reducing road safety for existing users). Viable suppliers of these materials exist in Goulburn, Crookwell, Berrima and Canberra. In addition to this, the proponent may be able to source gravel for internal roadworks from roadside earthworks involved in improving MR 256 which could provide cost savings for the development as well as road improvements for the benefit of the community.	All transport of heavy materials is to access the site to and from the north via Abercrombie Road. This would be included as part of the construction contractor's agreement, with a requirement to specifically identify material origins. As such, it is anticipated that no heavy vehicles will access the site via Taralga Road.
Upper Lachlan Shire Council (98928)	Council does not favour the utilization of "laser car" dilapidation reports in assessing the condition of the roads prior to and after construction. These reports are mainly suited to a broader assessment of a larger scale road network and lack adequate detail to identify smaller pavement repairs that may be required. Instead of this process, Council prefers to have a joint inspection and agreement that relies on photographs to identify pre-existing faults in the pavement.	Noted. It is not expected that dilapidation reports would be required for the use of roads by light vehicles only. However, the applicant will conduct any dilapidation reporting by joint inspection and agreement where necessary.
Upper Lachlan Shire Council (98928)	The proponent shall be required to produce a Transport Management Plan before consent is granted. This is to ensure that the required due diligence (and appropriate consultation with stakeholders) has been carried out in relation to any transport issues that might arise.	Noted. A Traffic Management Plan and associated Traffic Control Plans will be prepared in consultation with RMS and respective Councils. A draft Table of Contents is provided in Attachment 2.

Attachment 2

Overview Traffic Management Plan Table of Contents

Transport Management Plan

Table of Contents

Chapter 1: Introduction

An introduction to the proposal and subject site followed by the need for Transport Management Plan. The description would entail particulars such as vehicle and load details and anticipated project timelines - construction, operation and dismantling.

Chapter 2: Existing Site Conditions

An overview of existing road network and its condition, introduction to RMS heavy vehicle access route network in the vicinity of subject site, identification of available vehicle access routes and review of reported casualty accident history.

Chapter 3: Construction Arrangements

Detailed description pertaining to anticipated project timelines, construction material source locations, site layout, site access routes, anticipated internal site road network and car parking arrangements.

Chapter 4: Vehicle Access to Subject Site

Description of types of vehicles (over-dimensional, other heavy and light) anticipated to access site, estimated trips generation at construction, operation and dismantling stages. An assessment of likely impact on additional trips generated on existing road network.

Chapter 5: Survey of Proposed Route

Tabular representation of potential hazard locations with their approximate chainage, photograph and recommended traffic management measures.

Chapter 6: Mitigation Measures and Maintenance Schedule

An overview of anticipated road works on proposed route/s, mitigation measures for any vegetation and overhead utility obstructions and identification of requisite over-dimensional vehicle loads. A brief insight on recommended monitoring and maintenance schedule.

Chapter 7: Communication and Consultation

Detailed information pertaining to anticipated rest locations, contact details, emergency procedure, communication protocol and consultation process with affected community.

Appendix A: Photographic evidence of existing road conditions (potholes, deterioration, etc.) and surrounding environs (overhanging vegetation, developments, etc.)

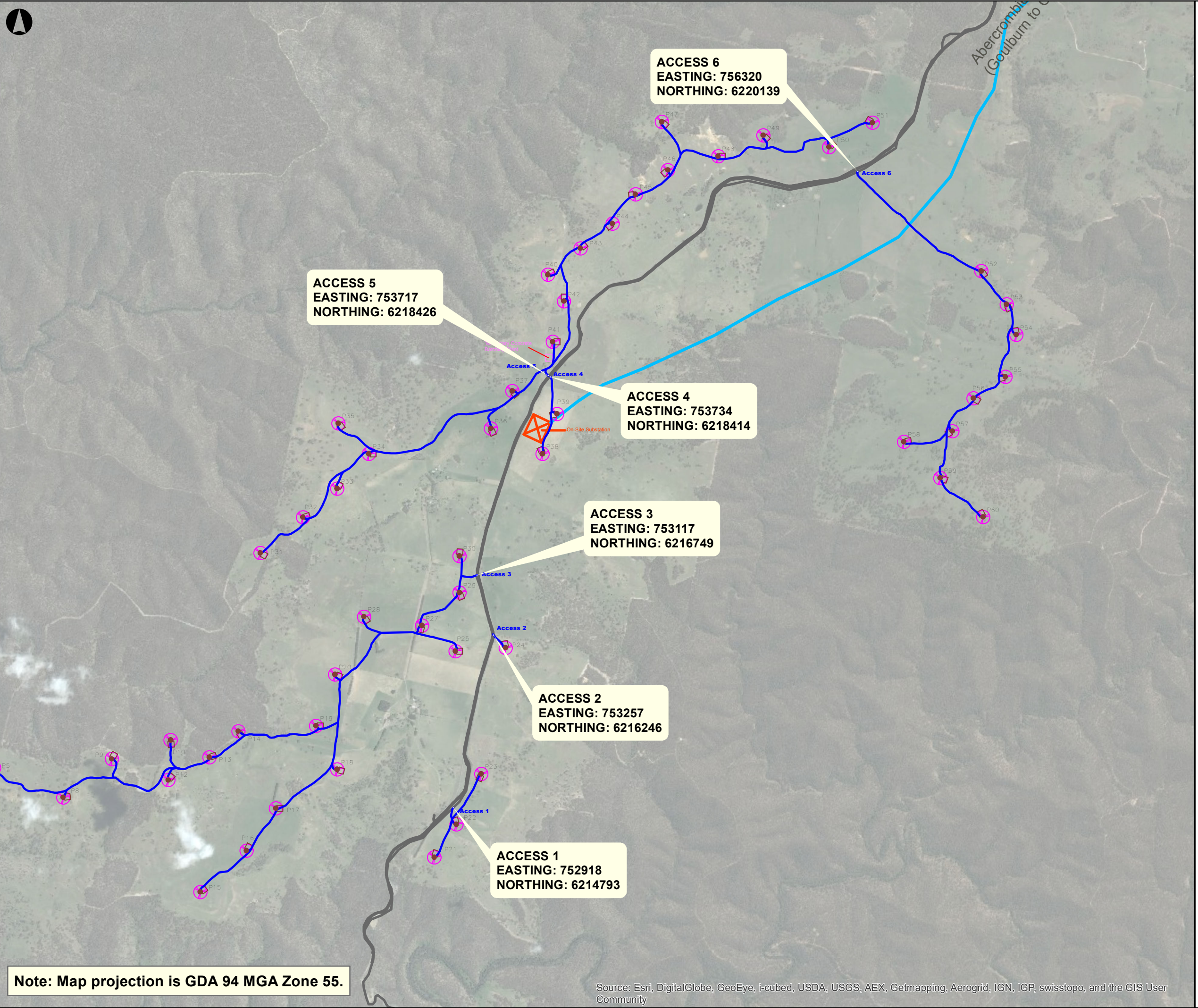
Appendix B: Swept Path Analysis plans at major intersections and pinch points.

Appendix C: Traffic Control Plans

Appendix D: Letters of concurrence and consultation with RMS, and respective Councils.

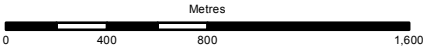
Attachment 3

Site Access Locations



Legend

P1	31-10-14	BLL	CDW	BDM
Issue	Date	By	Chkd	Appd





GTAconsultants

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Client
Union Fenosa Wind Australia Pty Ltd

Job Title
Paling Yards Wind Farm

Drawing Title
Access Locations

Scale at A3
1:30,000

Drawing Status
Preliminary

Job No	Drawing No	Issue
15S1176000	001	P1

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community